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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,461	08/31/2000	Hans Hannu	34645-00502USPT	3592

27045 7590 05/23/2005

ERICSSON INC.
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EXAMINER	
PHILPOTT, JUSTIN M	
ART UNIT	**PAPER NUMBER**
2665	

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/652,461	HANNU ET AL.	
	Examiner	Art Unit	
	Justin M. Philpott	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17,18,20-23 and 25* is/are rejected.

7)☒ Claim(s) *19,24 and 26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 December 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to newly added claims 17-26 have been considered but are moot in view of the new ground(s) of rejection. Specifically, applicant has canceled claims 1-16 and has argued that new claims 17-26 comprise new limitations which are not taught by Hamiti or applicant's admitted prior art. However, with respect to claims 17, 18, 20-23 and 25, these limitations are taught by the newly cited prior art of Koodli and AAPA as discussed in the following office action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 17, 20, 21 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,608,841 to Koodli.

Regarding claim 17, Koodli teaches a method for sending an Internet Protocol (IP)-based data packet across a radio link, the method comprising the steps of: compressing a packet header in the IP-based data packet (e.g., see col. 5, line 39 – col. 6, line 16 regarding packet header of an IP-based data packet prior to compression, and col. 6, lines 17-65 regarding header compressor

mechanism 26), where the compressed packet header (e.g., RTP header 126 compressed by header compressor mechanism 26) contains information related to changed values (e.g., first-order differences of the changing fields, see col. 6, line 66 – col. 7, line 10) within an IP identification header field (e.g., inherently within 314, see also col. 5, lines 39-65 regarding IP addresses fields; see also col. 8, lines 55-65 regarding FIGS. 4A-4B and ID field), a Real-Time-Transport Protocol (RTP) sequence number field (e.g., RTP sequence number 312) and a RTP time stamp field (e.g., RTP timestamp 310) when compared to values in a packet header associated with a previous IP-based data packet; compressing the compressed packet header again (e.g., inherently in accordance with second-order differences, see col. 7, lines 5-59) such that the further compressed packet header (e.g., packet header having a second-order difference of zero, see col. 7, lines 10-16) does not contain any information at all related to the IP identification header field, the RTP sequence number field and the RTP time stamp field (e.g., when both first-order difference and second-order difference are both zero, no additional header information is utilized and a previous saved uncompressed header at the receiver is used to construct the header, see col. 7, lines 10-16); and transmitting the IP-based data packet that has the further compressed packet header across the radio link (e.g., see col. 7, lines 5-59; see also RF link 50).

Regarding claim 20, Koodli teaches steps of: receiving the transmitted IP-based data packet (e.g., at decompressor 36); and decompressing the received IP-based data packet (e.g., by decompressor 36) to reconstruct the packet header by adding values in the IP identification header field (e.g., inherently within 314, see also col. 5, lines 39-65 regarding IP addresses fields; see also col. 8, lines 55-65 regarding FIGS. 4A-4B and ID field), the RTP sequence

number field (e.g., RTP sequence number 312) and the RTP time stamp field (e.g., RTP timestamp 310) (e.g., see col. 7, lines 10-16).

Regarding claim 21, Koodli teaches the step of decompressing further includes: assigning a sequence number to the RTP sequence number field (e.g., see col. 7, lines 5-16 and col. 7, line 60 – col. 9, line 37 regarding RTP sequence number field and reconstructing); reconstructing an IP identification of the IP identification header field using the assigned sequence number (e.g., see col. 7, line 60 – col. 9, line 37 regarding ID and sequence Sn fields); and reconstructing a time stamp of the time stamp header field using a timing of the radio frame (e.g., see col. 7, line 60 – col. 9, line 37 regarding timestampt T field).

Regarding claim 25, Koodli teaches a receiver comprising: a receiving unit (e.g., terminals 20 and 30) for receiving an IP-based data packet that has a compressed header (e.g., see col. col. 8, lines 55-65 and FIGS. 4A-4B regarding compressed RTP packet and col. 6, lines 3-65 regarding header compression) which does not contain any information at all related to an IP identification header field, an RTP sequence number field and an RTP time stamp field (e.g., when both first-order difference and second-order difference are both zero, no additional header information is utilized and a previous saved uncompressed header at the receiver is used to construct the header, see col. 7, lines 10-16); and a decompressing unit (e.g., decompressor 36) for reconstructing the compressed packet header by adding values in the IP identification header field (e.g., inherently within 314, see also col. 5, lines 39-65 regarding IP addresses fields; see also col. 8, lines 55-65 regarding FIGS. 4A-4B and ID field), the RTP sequence number field (e.g., RTP sequence number 312) and the RTP time stamp field (e.g., RTP timestamp 310) (e.g., see col. 7, lines 10-16).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koodli.

Regarding claim 22, Koodli teaches a transmitter comprising: a compressor (e.g., compressor 26) for compressing a packet header in the IP-based data packet (e.g., see col. 5, line 39 – col. 6, line 16 regarding packet header of an IP-based data packet prior to compression, and col. 6, lines 17-65 regarding header compressor mechanism 26), where the compressed packet header (e.g., RTP header 126 compressed by header compressor mechanism 26) contains information related to changed values (e.g., first-order differences of the changing fields, see col. 6, line 66 – col. 7, line 10) within an IP identification header field (e.g., inherently within 314, see also col. 5, lines 39-65 regarding IP addresses fields; see also col. 8, lines 55-65 regarding FIGS. 4A-4B and ID field), a Real-Time-Transport Protocol (RTP) sequence number field (e.g., RTP sequence number 312) and a RTP time stamp field (e.g., RTP timestamp 310) when compared to values in a packet header associated with a previous IP-based data packet; a compressor (e.g., compressor 26) for compressing the compressed packet header again (e.g., inherently in accordance with second-order differences, see col. 7, lines 5-59) such that the further compressed packet header (e.g., packet header having a second-order difference of zero, see col. 7, lines 10-16) does not contain any information at all related to the IP identification

header field, the RTP sequence number field and the RTP time stamp field (e.g., when both first-order difference and second-order difference are both zero, no additional header information is utilized and a previous saved uncompressed header at the receiver is used to construct the header, see col. 7, lines 10-16); and a transmitter (e.g., terminals 20 and 30) for transmitting the IP-based data packet that has the further compressed packet header across the radio link (e.g., see col. 7, lines 5-59; see also RF link 50).

Koodli may not specifically disclose the compression occurs in two separate compressors. However, Koodli teaches a plurality of available implementations of compressor 26 (e.g., see col. 6, lines 17-65). Further, it is generally considered to be within the ordinary skill in the art to duplicate parts for a multiplied effect. St. Regis Paper Co. v. Bemis Co., Inc., 193 USPQ 8, 11 (7th Cir. 1977). Additionally, it is generally considered to be within the ordinary skill in the art to shift the location of parts absent a showing of unexpected results. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to duplicate and shift the dual-functionality (e.g., first-order and second-order) of a compressor from the single compressor 26 of Koodli to respective first and second compressors since it is generally considered to be within the ordinary skill in the art to duplicate and/or shift the location of parts absent a showing of unexpected results. The contention of obvious choice in design can be overcome if Applicant establishes unexpected results. In re Japikse, 86 USPQ 70 (CCPA 1950).

6. Claims 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koodli in view of applicant's admitted prior art (AAPA).

Regarding claims 18 and 23, Hamiti teaches the method and transmitter of claims 17 and 22 as discussed above, however, may not specifically disclose the header compression is in accordance with a ROCCO compression protocol. However, applicant admits that it is well known in the art to utilize a ROCCO compression protocol for implementing header compression (e.g., see specification, page 4). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize a ROCCO compression protocol for the header compression of Hamiti since applicant admits that it is well known in the art to utilize a ROCCO compression protocol for implementing header compression.

Allowable Subject Matter

7. Claims 19, 24 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

with respect to claims 19 and 24, the additional step of adjusting an IP identification of the IP identification header field to conform to a stream-sequential identification format if the IP identification conforms to a random format or a host-sequential format, in combination with the remaining steps of claims 17 and 19, and claims 22 and 24, respectively, was not found in a search of related prior art;

and, with respect to claim 26, a decompressor within the receiver of claim 25 which further includes a local counter for assigning a sequence number within the RTP seqeunce header field, an IP identification processor for reconstructing an IP identification within the IP

identification header field using the assigned sequence number, and an RTP time stamp processor for reconstructing a time stamp within the time stamp header field using a timing of a radio frame in which the IP-based data packet was received, was not found in a search of related prior art.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Justin M Philpott

ALPUS H. HSU
PRIMARY EXAMINER

Application No: 09/652,461
File Date: August 31, 2000
Examiner: Justin M. Philpott
Attny Docket No: P13296-US2

REPLACEMENT PAGE

FIG. 1
PRIOR ART

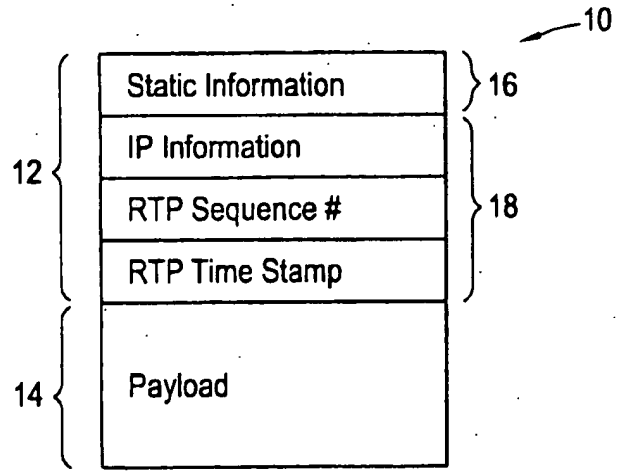
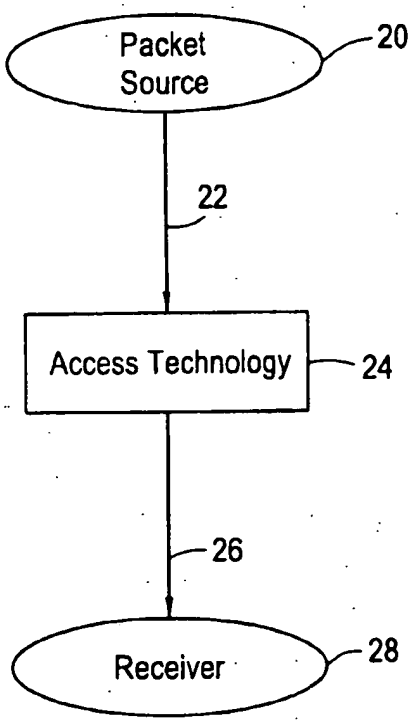


FIG. 2



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REPLACEMENT PAGE

FIG. 3

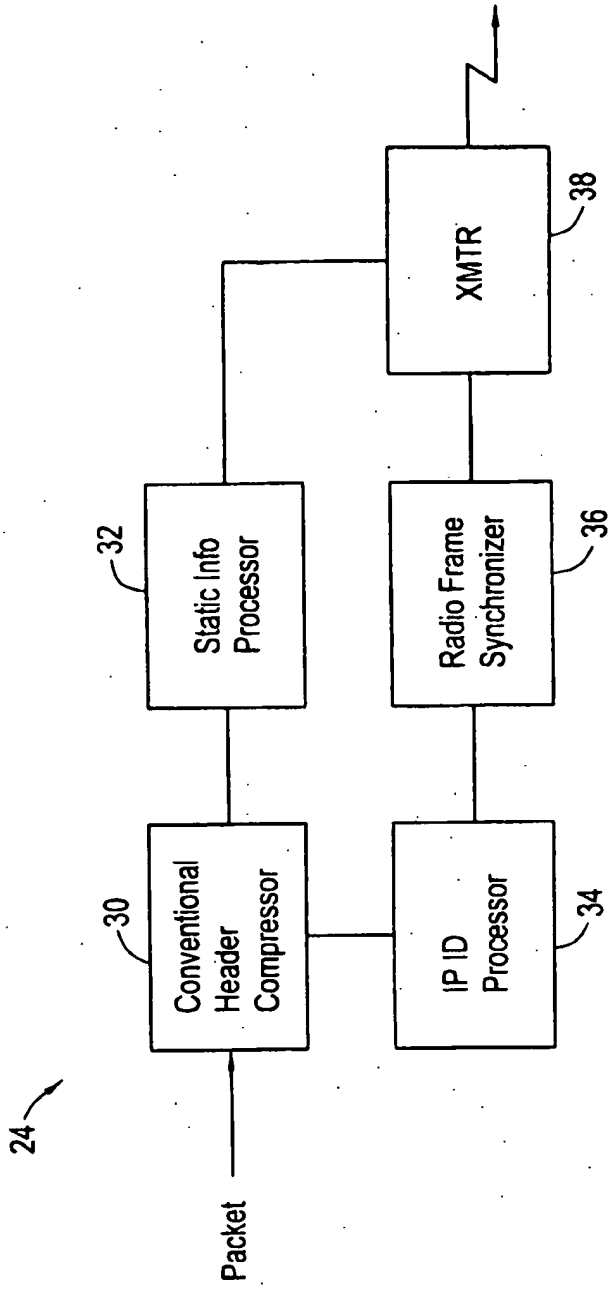
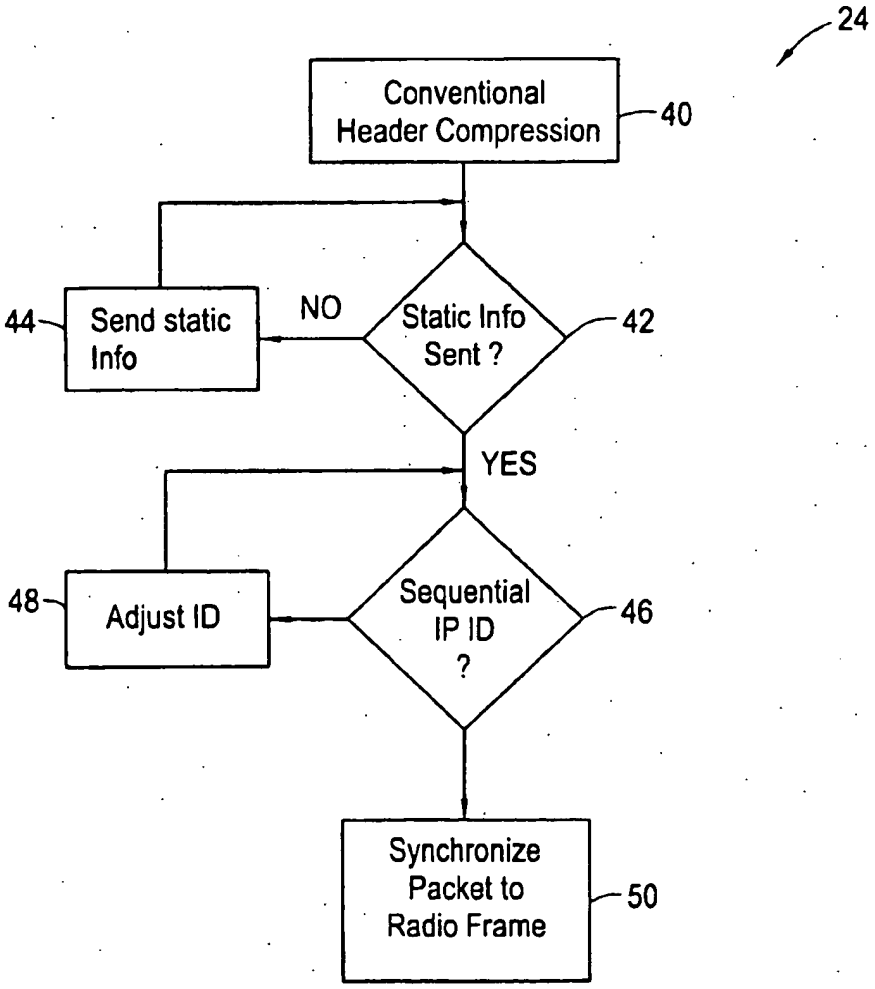


FIG. 4



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REPLACEMENT PAGE

FIG. 5

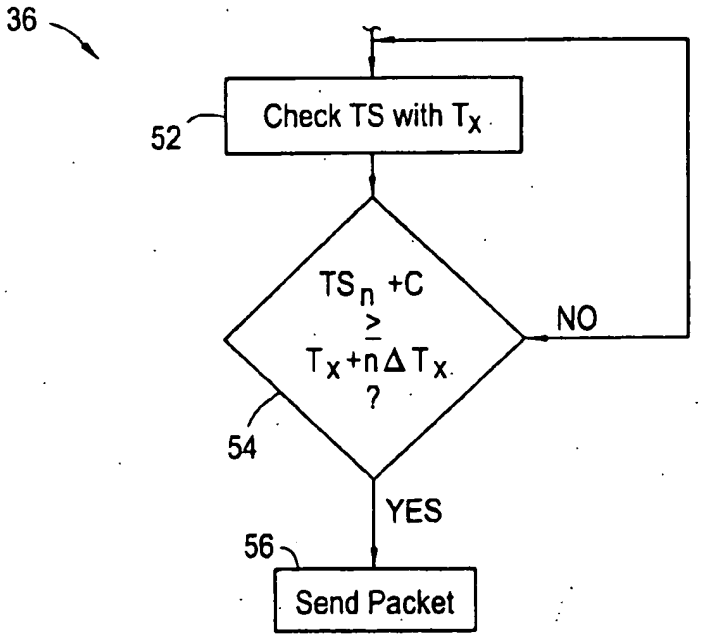

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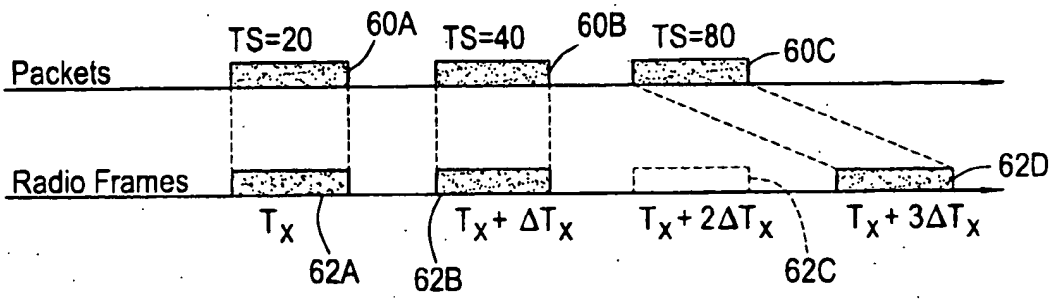
FIG. 6



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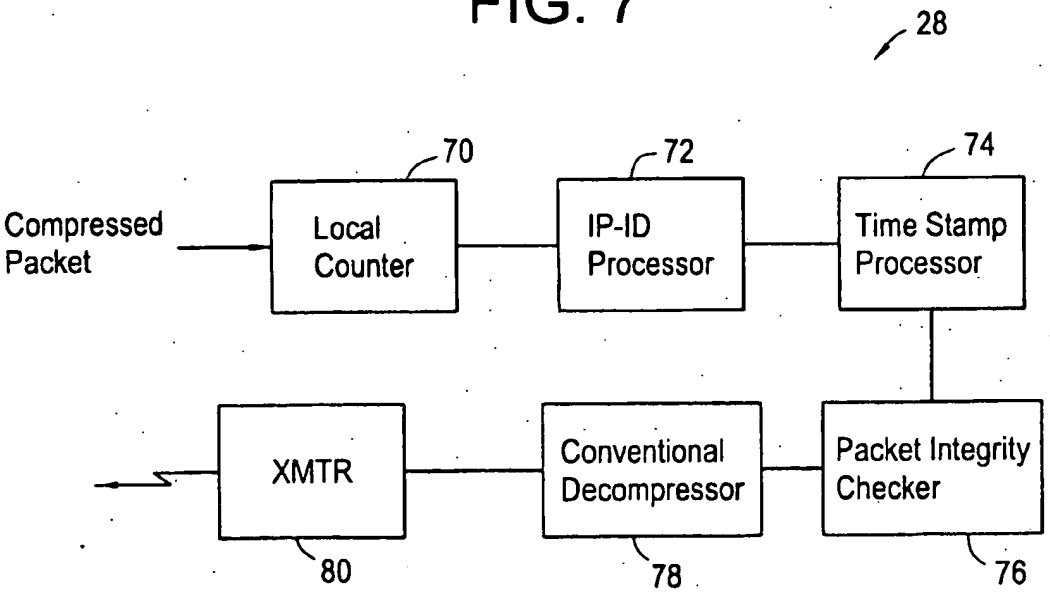
REPLACEMENT PAGE

FIG. 7



REPLACEMENT PAGE

FIG. 8

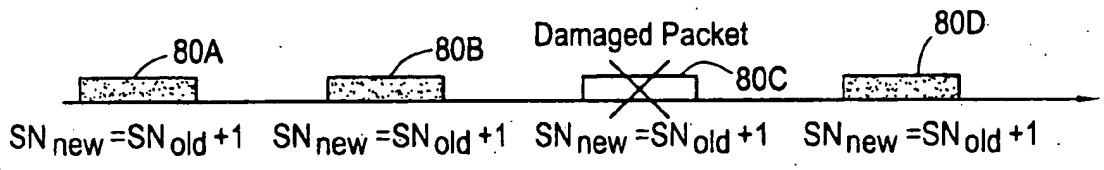


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FIG. 9